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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,070	07/11/2001	Tae-hun Shim	5649-885	9380

20792 7590 12/01/2003

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EXAMINER

STASHICK, ANTHONY D

ART UNIT	PAPER NUMBER
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3728

DATE MAILED: 12/01/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,070

Applicant(s)

SHIM ET AL.

Examiner

Anthony D Stashick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks 6,155,027 in view of Weder 6,397,560 and Titchenal et al. Re. 30,098. Brooks '027 discloses substantially all the limitations including the following: providing a carrying device 11 that holds semiconductor wafers W; inserting the carrying device into a packing bag (see Figure 6 or col. 6, line 9-col. 7, line 29); closing the packing by forming the bag around the carrying device; packing the wafer holder inside the first bag into a second bag (see col. 7, lines 23-29); sealing the first bag so that the device remains in communication with the environment external the first bag (through the port 50); folding a first portion of the bag to seal it (see other sealed end of bag in Figure 6, seal on second side would be done the same, folding along dashed line.). Brooks '027 does not specifically teach the sealing of the bag by applying forces to an outer surface of the packing bag opposite the cassette so as to press the packing bag against an external form of the cassette and adhering the bag to the external form of the cassette however Brooks '027 does teach the desire to have the bag closed by forming it around the cassette. Weder '560 teaches that forming it around the package, which is placed within the bag, by applying external pressure to the bag and forming it to the package located within it can close a bag. Titchenal et al. '098 teaches that a bag can be tightly fitted to the package held within the bag, thereby hermetically sealing the bag, by having an adhesive layer on the inside of the bag that allows for the bag to adhere to the form of the package held within it. Therefore, it would have been obvious, to one

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of ordinary skill in the art, at the time the invention was made, to make the bag of Brooks '027 conform to the cassette located within the bag by applying an external force on the outside of the bag, as taught by Weder '560, and allowing the bag to have an internal adhesive layer that attaches the bag to the form of the cassette and hermetically sealing the bag, as taught by Titchenal et al. '098, to prevent any contamination of the wafer located within the bag.

3. Claims 1, 2, 6, 11, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied above in view of Gillio-tos et al. 4,611,456. The references as applied above disclose all the limitations of the claims except for the trimming or cutting of the unnecessary border. Gillio-tos et al. '456 teaches that it is desirable to trim the excess material in packaging a product in order to recover the flash or excess material that extends past the product. Therefore, it would have been obvious to trim the excess material of the bag of the references as applied above to recover the excess material for possible reuse later. With respect to claims 2 and 20, it appears that it would have been obvious to make the container for any sized wafer, including 300 mm wafers, which are well known in the art.

4. Claims 3-5, 7-10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied in paragraph 5 above in view of Schirmer 4,928,474. The references as applied in paragraph 5 above disclose all the limitations of the claims except for the different materials of the multiple bags used and sealing the first bag loosely around the cassette. Schirmer '474 teaches that a product covered with multiple coverings (multiple bags) can have an inner covering made of polypropylene and a metal foil (such as aluminum) as an outer covering (see col. 3, Summary of the Invention). The inner layer of polypropylene allows for dissipation of moisture from the product through the layer, while the outer layer of aluminum prevents oxygen from entering the container. Therefore, it would have been obvious to make the inner bag of the references as applied in paragraph

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5 above out of polypropylene and the outer bag out of aluminum, as taught by Schirmer '474, to allow for any trapped moisture to escape from within the inner bag and prevent oxygen from entering the bag and contaminating the product. With respect to claim 8, it appears that it would have been obvious to make the container for any sized wafer, including 300 mm wafers, which are well known in the art.

5. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 12 above in view of Cho et al. 6,170,235. The references as applied to claim 12 above disclose all the limitations of the claims except for the packaging being done in a packing room on the same level as a wafer clean room and the wafers being cleaned before packing. Cho et al. '235 teaches that wafers can be cleaned and then packed before there is a specific amount of sulphuric oxide buildup on the wafer. Cho et al. '235 also teaches that this packaging can be done in a clean room that is at least a Class 10 clean room, the same level used for wafers. Therefore, it would have been obvious to clean and package the wafers in a clear room as taught by Cho et al. '235, to prevent any corrosion to the wafers before and during packaging.

Response to Arguments

6. Applicant's arguments filed September 17, 2003 have been fully considered but they are not persuasive. Applicant argues that the Weder reference applied to the claims does not disclose sealing a packing bag by applying force to an outer surface of the bag to press the bag against an external form of a cassette or carrying device. This argument is not clearly understood. The method of closure of the bag of Weder teaches that the bag is gathered or crimped together (applying force to external surface) to provide closure of the bag about the basket as shown in Figure 14. This appears to take the shape of the basket enclosed within the bag, thereby meeting the limitations of the claims. With respect to applicant's argument that Titchenal does not disclose the applying of the external force to the bag, this

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teaching was clearly taught by Weder, and Titchenal was used to teach that it is desirable to have an article enclosed within a bag conform to the form of the article.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, "should be directed to the group clerical personnel and not to the examiners. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information without contacting the examiners", M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, email CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony D Stashick whose telephone number is 703-308-3876. The examiner can normally be reached on Monday through Thursday from 6:30 am until 4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on 703-308-2672. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 305-8322
Assignment Branch	(703) 308-9287
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404/8335
Fee Increase Questions	(703) 305-5125
Intellectual Property Questions	(703) 305-8217
Petitions/Special Programs	(703) 305-9282
Terminal Disclaimers	(703) 305-8408
Informal Fax for 3728	(703) 308-7769

If the information desired is not provided above, or has been changed, please do not call the examiner (this is the latest information provided to him) but the general information help line below.

Information Help line	1-800-786-9199
Internet PTO-Home Page	http://www.uspto.gov/



Anthony D Stashick
Primary Examiner
Art Unit 3728

ADS
November 26, 2003